1. A total of 707 subjects participated in this study of which 46.95% were females and 53.04% were males.

2. 32.53% of the participants were in the age group of 25 to 45 years, a 56.86% fell in the age group of 46 to 65 years while the remaining 10.60% were above 65 years. 41% of the study population was obese having a BMI ≥25 kg/m².

3. The incidence of CAD risk factors viz; 15% HTN, 7.5% DM-2, 10.32% had a combination of both while 7.07% were dyslipidemic. Among the CADs, 16.98% USAP and 15.85% AMI, 28.28% were healthy subjects.

4. Mean values of Lp(a) markedly higher than the normal baseline cut-off of less than 20 mg/dl in subjects with CAD compared to those having CAD risk factors.

5. Similarly Apo A1 was lower than the normal baseline cut off of more than 121mg/dl in HTN (114.63±27.15), DM 2 (103.26±21.79), HTN+DM-2 (108.81±21.33) and dyslipidemia (108.16±24.68) compared to healthy controls (122.27±17).

6. Apo B and CLTI were raised in subjects with CAD risk factors and CAD compared healthy to controls.

7. 56.2% had metabolic syndrome. The prevalence was higher in females (59.30%) compared to males (53.30%).

8. The distribution of MS components 1,2,3,4 and 5 were The prevalence of MS components 1,2,3,4 and 5 were 6.36, 16.4,21.07,21,78, 24.19 and 10.18 respectively.

9. Among the components of metabolic syndrome 77.80% had high waist circumference, 86% high blood pressure, 56% elevated fasting blood glucose, 62 % high Tg and 75% low HDL-C.

10. All anthropometric measurements, blood pressure and lipid profile were high and significantly raised in subject with metabolic syndrome compared to subjects without MS.

11. The prevalence of CVD risk factors were significantly higher in subjects with MS than those without MS. The prevalence of elevated LDL-C and decreased HDL-C was lower compared to their apolipoproteins (Apo B and Apo A-I) in CAD, its risk factors and MS.
12. The levels of Lp(a), Apo B and CLTI were found to be elevated in MS patients and were found highly significant (p < 0.01) as compared to the non MS. Apo A-I significantly decreased in MS. Lp(a) levels were not affected by gender.

13. Apo A-I and Apo B were significantly negatively correlated having a correlation coefficient (CC) of -0.428, <0.001. Apo A-I correlated negatively to other atherogenic indices such as lipoprotein ratios TC/HDL-C, Tg/HDL-C, LDL-C/HDL-C and Apo B/Apo A-I having CC of -0.148, -0.220, 0.142 and 0.577 respectively.

14. With the increasing MS components the mean value of Lp(a), Apo B and CLTI increased contrary to Apo A-I.

15. Multivariate analysis of elevated Lp(a), Apo B, CLTI and reduced Apo A-I showed high risk in the age group of 46-65yrs. The MS components that significantly affected an elevation of Lp(a) were of elevated BP, TG, FBG and low HDL-C. The MS components that significantly affected an elevation of CLTI were of BP, TG, HDL and WC.

16. The MS components that significantly affected an elevation of Apo B were of Age, BP, WC, TG, HDL and FBG. The MS components that significantly affected an elevation of Apo A-I were of elevated BP, TG, FBG and low HDL-C.

17. The specificity and sensitivity was the highest for Lp(a) and CTLI in subjects having CAD. Tg/HDL-C appeared to be a good predictor of insulin resistance in this study. Apo B and Apo B/Apo A-I ratio appeared better as CAD risk factors on ROC curve analysis.